

Appendix A. Test Sequences Mapped to External Interfaces

The left column of this table lists each interface external to the Release A ECS LaRC DAAC. In the right column is a list of test sequences which contains tests involving that external interface.

External Interface	LaRC Test Sequence
EDOS (Simulator)	9.1.1 Data Ingest, Process, and Archive at LaRC DAAC from SDPF Sequence 9.1.3 Early AM-1 Interface Test Support Sequence 12.1.2 Multi-Site System Management Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence 12.5.4 ECS Testability and Overall Capabilities Sequence
EOC	8.1.7 Facilities Interfaces Sequence 8.6.1 Fault Management Sequence 12.1.1 Inter-Site Message Sequence
Global Change Master Directory (GCMD)	10.1.1 ECS Desktop User Sequence 10.1.2 ECS/Version 0 (V0) System Interoperability Sequence 10.1.3 EOSDIS Core System (ECS)/Affiliated Data Center (ADC) Interoperability Sequence
GSFC V0 DAAC	8.1.7 Facilities Interfaces Sequence 12.4.4 ECS Data Set Interoperability Sequence
SDPF	8.1.7 Facilities Interfaces Sequence 9.1.1 Data Ingest, Process, and Archive at LaRC DAAC from SDPF Sequence 12.1.2 Multi-Site System Management Sequence 12.2.1 SDPF Data Handling and Processing Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence

External Interface	LaRC Test Sequence
SMC	8.1.5 Site Maintenance Sequence 8.1.7 Facilities Interfaces Sequence 8.2.1 Schedule Generation Sequence 8.2.2 Schedule Adjudication Sequence 8.3.1 Enhancements Sequence 8.4.1 Resource Management Sequence 8.4.3 Logistics Management Sequence 8.4.4 Training Management Sequence 8.4.5 Inventory Management Sequence 8.4.6 Quality Management Sequence 8.4.7 Policies and Procedures Management Sequence 8.5.1 Metrics Sequence 8.5.2 Performance Monitoring, Analysis & Testing Sequence 8.6.1 Fault Management Sequence 8.6.2 Security Management Sequence 8.6.4 Report Generation Sequence 9.2.1 Higher Level Processed Data Receipt from the V0 DAAC Sequence 9.2.5 Higher Level Processed Data Receipt from the NOAA ADC to the LaRC DAAC Sequence 9.5.3 Maintain Processing Plans and Schedules Sequence 10.1.1 ECS Desktop User Sequence 10.2.2 LaRC SCF/ECS Sequence 12.1.1 Inter-Site Message Sequence 12.1.2 Multi-Site System Management Sequence 12.2.1 SDPF Data Handling and Processing Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence 12.5.4 ECS Testability and Overall Capabilities Sequence
CERES SCF (Simulated)	9.3.1 Reprocessing Request Receipt/Processing from the SCF (LaRC) Sequence 10.2.2 LaRC SCF/ECS Sequence 12.2.3 TRMM Data Product Distribution Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence
NOAA ADC	8.1.7 Facilities Interfaces Sequence 9.2.5 Higher Level Processed Data Receipt from the NOAA ADC to the LaRC DAAC Sequence 10.1.3 EOSDIS Core System (ECS)/Affiliated Data Center (ADC) Interoperability Sequence 12.4.4 ECS Data Set Interoperability Sequence

External Interface	LaRC Test Sequence
GSFC ECS DAAC	8.1.5 Site Maintenance Sequence 8.1.7 Facilities Interfaces Sequence 8.3.1 Enhancements Sequence 8.6.1 Fault Management Sequence 10.1.1 ECS Desktop User Sequence 12.1.1 Inter-Site Message Sequence 12.1.2 Multi-Site System Management Sequence 12.4.1 Science Data Search and Retrieval Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence 12.5.4 ECS Testability and Overall Capabilities Sequence
EDC ECS DAAC	8.1.7 Facilities Interfaces Sequence 8.6.1 Fault Management Sequence 12.1.1 Inter-Site Message Sequence
MSFC SCF	10.3.1 ECS/ADC Interoperability Sequence
LaRC V0 DAAC	8.1.7 Facilities Interfaces Sequence 9.2.1 Higher Level Processed Data Receipt from the V0 DAAC Sequence 10.1.1 ECS Desktop User Sequence 10.1.2 ECS/Version 0 (V0) System Interoperability Sequence 10.1.3 EOSDIS Core System (ECS)/Affiliated Data Center (ADC) Interoperability Sequence 10.2.2 LaRC SCF/ECS Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence 12.5.4 ECS Testability and Overall Capabilities Sequence
EDC V0 DAAC	8.1.7 Facilities Interfaces Sequence
MSFC V0 DAAC	8.1.7 Facilities Interfaces Sequence
LaRC ECS DAAC	10.2.2 LaRC SCF/ECS Sequence

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Appendix B. Test Sequences Mapped to Operations Scenarios

The left column of this table lists each operational scenario from the ECS Operations Scenarios - Release A (605/OP1). In the right column is a list of test sequences which contains tests involving that operational scenario.

Almost all of the ops. scenarios (except those related to TSDIS) will be included in the LaRC Volume. In addition, some of the ops scenarios are only related to LaRC and will be in only that volume.

Table B-1. Test Sequences Mapped to Operations Scenarios

Operational Scenario	Test Sequence Number
3.1 Computer System Administration Activities	
3.1.1 ECS System Shutdown/Startup Scenario	8.1.2 Site Start-up Sequence
3.1.2 Computer System Administration Backup & Restore/Recovery	8.1.4 Site Shutdown/Recovery Sequence 8.1.6 Site Data/Metadata/Information Management Sequence
3.2 Problem Management Activities	
3.2.1 Trouble Ticket and Problem Tracking Scenario	
3.3 Fault Management Activities	8.4.7 Policies and Procedures Management Sequence
3.3.1 Production Failure Scenario	
3.4 Configuration Management (CM) Activities	8.4.5 Inventory Management Sequence
3.4.1 COTS Hardware Problem Scenario	
3.4.2 Hardware Emergency Change Scenario	
3.4.3 COTS Software Problem Scenario	
3.4.4 Custom Software Problem Scenario	
3.4.5 COTS Software Upgrade Scenario	
3.4.6 Add New Science Algorithm Scenario	10.2.2 LaRC SCF/ECS Sequence
3.4.7 System Enhancement Request Scenario	8.3.1 Enhancements Sequence
3.5 Performance Management Activities	8.4.6 Quality Management Sequence
3.5.1 Operations Support Scenario	8.5.1 Metrics Sequence
3.5.2 User Notes Performance Degradation	8.5.1 Metrics Sequence 8.5.2 Performance Monitoring, Analysis & Testing Sequence

Operational Scenario	Test Sequence Number
3.5.3 Preparing for New Algorithm Scenario	8.5.2 Performance Monitoring, Analysis & Testing Sequence
3.5.4 Performance Trending Scenario	8.5.2 Performance Monitoring, Analysis & Testing Sequence
3.6 Security Management	
3.6.1 Security Management Login Failure Scenario	8.6.2 Security Management Sequence
3.6.2 Accountability Management Create User Account Scenario	8.6.3 Accounting and Accountability Sequence
3.7 Resource Planning Activities	8.4.1 Resource Management Sequence
3.7.1 Resource Planning Scenario	8.2.1 Schedule Generation Sequence 8.5.2 Performance Monitoring, Analysis & Testing Sequence 9.2.1 Higher Level Processed Data Receipt from the V0 DAAC Sequence 9.1.3 Early AM-1 Interface Test Support Sequence 9.2.5 Higher Level Processed Data Receipt from the NOAA ADC to the LaRC DAAC Sequence 9.3.1 Reprocessing Request Receipt/Processing from the SCF (LaRC) Sequence 9.5.3 Maintain Processing Plans and Schedules Sequence 12.1.2 Multi-Site System Management Sequence 12.4.4 ECS Data Set Interoperability Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence
3.8 Resource Management and Control Activities	8.4.1 Resource Management Sequence
3.8.1 Data Processing Host Routine Maintenance Scenario	
3.8.2 Installation of Software Upgrade Scenario	
3.9 Science Data Ingest Activities	
3.9.1 TRMM Level 0 Data Ingest Scenario	9.1.1 Data Ingest, Process, and Archive at LaRC DAAC from SDPF Sequence 12.2.1 SDPF Data Handling and Processing Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence
3.9.2 TRMM Data Ingest "Fault" Scenario	9.1.1 Data Ingest, Process, and Archive at LaRC DAAC from SDPF Sequence 12.5.4 ECS Testability and Overall Capabilities Sequence

Operational Scenario	Test Sequence Number
3.9.3 TRMM Ancillary Data Ingest Scenario	9.1.1 Data Ingest, Process, and Archive at LaRC DAAC from SDPF Sequence 9.2.1 Higher Level Processed Data Receipt from the V0 DAAC Sequence 9.2.5 Higher Level Processed Data Receipt from the NOAA ADC to the LaRC DAAC Sequence 12.2.1 SDPF Data Handling and Processing Sequence 12.4.4 ECS Data Set Interoperability Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence
3.9.4 Hard Media Ingest Scenario	
3.9.5 Version 0 Data Ingest Scenario	9.2.1 Higher Level Processed Data Receipt from the V0 DAAC Sequence 12.4.4 ECS Data Set Interoperability Sequence
3.10 Science Data Archival Activities	
3.10.1 Startup of a New Data Server Scenario (Nominal)	9.1.1 Data Ingest, Process, and Archive at LaRC DAAC from SDPF Sequence
3.10.2 Data Insertion Scenario (nominal)	9.2.1 Higher Level Processed Data Receipt from the V0 DAAC Sequence 9.2.5 Higher Level Processed Data Receipt from the NOAA ADC to the LaRC DAAC Sequence 9.3.1 Reprocessing Request Receipt/Processing from the SCF (LaRC) Sequence 12.4.4 ECS Data Set Interoperability Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence
3.10.3 Data Insertion Scenario (fault)	9.1.1 Data Ingest, Process, and Archive at LaRC DAAC from SDPF Sequence
3.11 Science Data Distribution Activities	
3.11.1 Network Data Distribution (Pull) Scenario (Nominal)	8.6.3 Accounting and Accountability Sequence 10.1.1 ECS Desktop User Sequence 10.2.2 LaRC SCF/ECS Sequence 12.2.3 TRMM Data Product Distribution Sequence 12.4.1 Science Data Search and Retrieval Sequence 12.4.4 ECS Data Set Interoperability Sequence 12.5.2 System Response Time Performance Sequence
3.11.2 Network Data Distribution (Push) Scenario (Nominal)	12.5.2 System Response Time Performance Sequence
3.11.3 Network Data Distribution (Push) Scenario (Fault)	

Operational Scenario	Test Sequence Number
3.11.4 Hard Media Distribution Scenario	10.1.1 ECS Desktop User Sequence 10.1.2 ECS/Version 0 (V0) System Interoperability Sequence 12.5.2 System Response Time Performance Sequence
3.11.5 Network Data Distribution (Pull) Scenario	
3.12 Production Planning Activities	
3.12.1 Routine Production Planning Scenario	8.2.1 Schedule Generation Sequence 9.3.1 Reprocessing Request Receipt/Processing from the SCF (LaRC) Sequence 9.5.3 Maintain Processing Plans and Schedules Sequence 12.2.1 SDPF Data Handling and Processing Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence
3.12.2 Replanning Production Scenario	8.2.2 Schedule Adjudication Sequence 9.3.1 Reprocessing Request Receipt/Processing from the SCF (LaRC) Sequence
3.13 Production Processing	
3.13.1 Normal Production Processing Scenario	9.1.1 Data Ingest, Process, and Archive at LaRC DAAC from SDPF Sequence 9.3.1 Reprocessing Request Receipt/Processing from the SCF (LaRC) Sequence 12.5.1 Data Ingest, Data Server and Data Distribution Performance Sequence
3.13.2 Production Processing Job Anomaly Scenario	9.1.1 Data Ingest, Process, and Archive at LaRC DAAC from SDPF Sequence
3.13.3 Production Processing Job Modification Scenario	
3.14 User Services Activities	
3.14.1a End-to-End Order Tracking Scenario - Hard Media	10.1.1 ECS Desktop User Sequence 10.1.2 ECS/Version 0 (V0) System Interoperability Sequence 10.1.3 EOSDIS Core System (ECS)/Affiliated Data Center (ADC) Interoperability Sequence
3.14.1b End-to-End Order Tracking Scenario - FTP	10.1.1 ECS Desktop User Sequence 10.1.2 ECS/Version 0 (V0) System Interoperability Sequence 10.1.3 EOSDIS Core System (ECS)/Affiliated Data Center (ADC) Interoperability Sequence
3.14.2 Standard Procedures (Login) Scenario	
3.14.3 System Status Scenario	

Operational Scenario	Test Sequence Number
3.14.4 Place an Order for a Potential User Scenario	10.1.1 ECS Desktop User Sequence 10.1.2 ECS/Version 0 (V0) System Interoperability Sequence 10.1.3 EOSDIS Core System (ECS)/Affiliated Data Center (ADC) Interoperability Sequence
3.14.5 Non Conformance Report (Software problem) Scenario	
3.14.6 Lost User Password Scenario	

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Appendix C. Test Procedures Mapped to M&O Operations Manual

This table lists each of the maintenance procedures from the Maintenance and Operations Procedures (DID 611) in the left column, and in the right column a list of test procedures which use that procedure.

(Note: This table was requested by GSFC DAAC. It will be filled in as the information becomes available)

Table C-1. Test Procedures Mapped to M&O Operations Manual

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
3. SYSTEM ADMINISTRATION	
3.1 System Startup and Shutdown	
3.1.1 Startup	
3.1.1.1 Cold - By Subsystem	
3.1.1.2 Warm - By Server Software	
3.1.2 Shutdown	
3.1.2.1 Normal - By Subsystem	
3.1.2.2 Emergency - By Subsystem	
3.1.2.3 Server - By Server Software	
3.1.3 Failover	
3.2 System Backup and Restore	
3.2.1 Incremental Backup	
3.2.2 Full Backup	
3.2.3 File Restore	
3.2.4 Complete System Restore	
3.2.5 Tape Handling	
3.2.5.1 Indexing Tapes	
3.2.5.2 Labeling Tapes	
3.3 System Log Maintenance	
3.4 User Administration	
3.4.1 Adding a User	
3.4.2 Deleting a User	
3.4.3 Changing a User Account Configuration	
3.4.4 Changing User Access Privileges	
3.4.5 Changing a User Password	
3.4.6 Checking a File/Directory Access Privilege Status	
3.4.7 Changing a File/Directory Access Privilege	
3.4.8 Moving a User's Home Directory	
3.5 Installing a New Workstation	
3.5.1 Preparation	
3.5.1.1 Hardware	
3.5.1.2 Network Configuration	
3.5.2 Installation	
3.5.2.1 Hardware	
3.5.2.1.1 Reporting to Inventory	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
3.5.2.2 Operating System Installation - By Operating System Type	
3.5.2.2.1 Solaris 2.4 Operating System Installation	
3.5.2.2.2 HP-UX 9.05 Operating System Installation	
3.5.2.2.3 IRIX 5.3 and 6.2 Operating Systems Installation	
3.5.2.2.4 NCD Operating System Installation	
3.5.2.3 Software	
3.5.2.3.1 Custom	
3.5.2.3.2 COTS	
3.5.3 Testing and Verification	
3.5.3.1 Reboot	
3.5.3.1.1 SGI, HP and Sun	
3.5.3.1.2 NCD	
3.5.3.2 Logging In	
3.5.3.3 Test Environment	
3.6 DCE Configuration	
3.6.1 Initial Cell	
3.6.2 DTS Servers	
3.6.3 Additional CDS Servers	
3.6.4 Security and CDS Client Systems	
3.6.4.1 Unconfiguring DCE Client	
3.6.5 DTS Clerks	
3.6.6 CDS Servers	
3.6.7 Creating a Security Server Replica	
4. DATABASE ADMINISTRATION	
4.1 Product Installation and Disk Storage Management	
4.1.1 Installing SQL Server and Related Products and Upgrading New Version of SQL Server Products	
4.1.2 Migrating Databases to New Version SQL Server	
4.1.3 Allocating Resources	
4.1.3.1 Allocating Disk Space: Creating Database Devices, Maintaining Database Segments	
4.1.4 Monitoring and Managing Resource Utilization	
4.1.4.1 Use of Available Disk Space, Memory, Connection Error Logs, State of Transaction Logs, Device Problems, etc.	
4.2 SQL Server Lifecycle Maintenance	
4.2.1 Starting the Server	
4.2.2 Shutting Down the Server	
4.3 SQL Server Logins and Privileges	
4.3.1 Creating SQL Server Login Accounts	
4.3.2 Add User to Database(s)	
4.3.3 Granting Access Privileges	
To grant access privileges, the DBA must have the following TME administrator roles:	
4.3.4 Modifying Access Privileges	
4.4 Database Integrity	
4.4.1 Checking Consistency	
4.5 Database Backup and Recovery	
4.5.1 Database Backup	
4.5.2 Transaction Log Backup	
4.6 ECS DAAC-Configured Databases	
4.6.1 Database Size Estimates and Planning	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
4.6.2 Database-unique Attributes	
4.6.3 Database Reports	
4.7 Database Tuning and Performance Monitoring	
4.7.1 Design and Indexing	
4.7.2 Queries	
4.7.3 Monitoring and Boosting Performance	
4.8 Troubleshooting	
4.8.1 Diagnosing Database System Problems	
4.8.1.1 Reports	
4.8.1.2 Queries	
4.8.2 On-call User Support and Emergency Response	
5. SECURITY SERVICES	
5.1 Running Security Management Log Analyst Program	
5.2 Reviewing User Activity Data	
5.3 Monitoring and Reviewing User Audit Trail Information	
5.4 Creating a DES User Key	
5.4 Kerberos Authentication	
5.5 SATAN	
5.6 Using Crack	
5.7 Npasswd	
5.8 Tcp_wrappers	
5.9 Tripwire	
5.10 Recovering from Security Breaches	
5.11 Reporting Security Breaches	
6. NETWORK ADMINISTRATION	
6.1 HPOpenView Network Node Manager (NNM)	
6.1.1 Starting NNM (Network Node Manager)	
6.1.2 Adding a Network Object	
6.1.3 Adding a Segment Object	
6.1.4 Adding a Node Object	
6.1.5 Adding an IP Interface Object	
6.1.6 Viewing the Current Network and System Configuration	
6.1.7 Viewing Network Address Information	
6.1.8 Viewing How Traffic is Routed on a Network	
6.1.9 Viewing the Services Available on a Node	
7. SYSTEM MONITORING	
7.1 Checking the Health and Status of the Network	
7.1.1 Starting NNM (Network Node Manager)	
7.1.2 Verify That an Object Is Not Functioning	
7.1.3 Looking at Maps for Color Alerts	
7.1.4 Looking at Maps for New Nodes	
7.1.5 Creating Special Submaps for Monitoring Status	
7.1.6 Checking for Event Notifications	
8. PROBLEM MANAGEMENT	
8.1 Problem Resolution Process — An Overview	
8.2 Using the Trouble Ticket System Tool	
8.2.1 Accessing the Trouble Ticket System	
8.2.1.1 Remedy's GUI Admin Tool	
8.2.1.2 Remedy's GUI Import Tool	
8.2.1.3 Remedy's Hardware Information Schema	
8.2.1.4 Remedy's GUI Notification Tool	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
8.2.2 Submit a Trouble Ticket	
8.2.3 Reviewing and Modifying Open Trouble Tickets	
8.2.4 Forwarding Trouble Tickets	
8.2.5 Adding Users to Remedy	
8.2.6 Changing Privileges in Remedy	
8.2.7 Modifying Remedy's Configuration	
8.2.8 Generating Trouble Ticket Reports	
8.2.9 Re-prioritization of Dated Trouble Ticket Logs	
8.3 Using Hypertext Mark-up Language (HTML) Screens	
8.3.1 ECS Trouble Ticketing HTML Submit Screen	
8.3.2 ECS Trouble Ticketing HTML Success Screen	
8.3.3 ECS Trouble Ticketing HTML List Screen	
8.3.4 ECS Trouble Ticketing HTML Detailed Screen	
8.3.5 ECS Trouble Ticketing HTML Help Screen	
8.4 Emergency Fixes	
8.5 Diagnosing Network Problems	
8.5.1 Performance Management	
9. CONFIGURATION MANAGEMENT	
9.1 Configuration Identification Procedure	
9.1.1 Purpose	
9.1.2 Applicable to	
9.1.3 References	
9.1.4 Procedures	
9.1.4.1 Extended Configuration Identification	
9.1.4.2 Other Procedures as Applicable	
9.2 Configuration Change Control Procedures	
9.2.1 Purpose	
9.2.2 Applicable to	
9.2.3 References	
9.2.4 Procedures	
9.2.4.1 Configuration Change Request Preparation	
9.2.4.2 Change Control Board Process (System and Site-level CCBs)	
9.2.4.3 Configuration Control - Deviation and Waivers	
9.3 Configuration Status Accounting Procedures	
9.3.1 Purpose	
9.3.2 Applicable to	
9.3.3 References	
9.3.4 Procedures	
9.4 Configuration Audits	
9.4.1 Purpose	
9.4.2 Applicable to	
9.4.3 References	
9.4.4 Procedures	
9.5 Data Management	
9.5.1 Purpose	
9.5.2 Applicable to	
9.5.3 References	
9.5.4 Procedures	
9.5.4.1 Information Preparation, Submittal, & Cataloging	
9.5.4.1.1 Creation / Preparation	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
9.5.4.1.2 Submission	
9.5.4.1.3 Identification and numbering	
9.5.4.1.4 Logging / Cataloguing	
9.5.4.2 Information Review, Signoff, Release and Change/Revision	
9.5.4.2.1 Document/Test data Review, Release, and Change Procedures	
9.5.4.2.2 Review/Release	
9.5.4.2.3 Changes, Revision and Document Maintenance	
9.5.4.3 Information Distribution and Submission to ESDIS/ ECS	
9.5.4.3.1 Data / Document Distribution/Submittal to ESDIS/ ECS	
9.5.4.3.2 Categories of CDRL Data Submitted to ESDIS/ ECS	
9.5.4.3.3 Documentation Distribution	
9.6 Archiving Procedures for the SW CM Manager (ClearCase)	
9.6.1 Purpose	
9.6.2 Applicable to	
9.6.3 References	
9.6.4 Procedures	
9.7 SW Transfer and Installation	
9.7.1 Purpose	
9.7.2 Applicable to	
9.7.3 References	
9.7.4 Procedures	
9.7.4.1 Overview	
9.7.4.2 Operator Roles	
9.7.4.3 Detailed Procedures	
9.7.4.4 Data Activity	
9.8 Change Request Manager	
9.8.1 Configuration Change Request (CCR)	
9.8.2 Accessing Change Request Manager	
9.8.3 View a CCR	
9.8.4 Submit a CCR	
9.8.5 Change State of CCR	
9.8.5.1 Assign-Eval State	
9.8.5.2 Assign-Implement State	
9.8.5.3 Assign-Verify State	
9.8.5.4 Verify State	
9.8.5.5 Close State	
9.8.6 Modify CCR	
9.8.7 Print CCR	
9.8.8 Required Operating Environment	
9.8.8.1 Interfaces and Data Types	
9.8.8.2 Databases	
9.8.8.3 Database Schema	
9.8.8.4 Database Parameters	
9.8.8.5 Command Line Interface	
9.8.8.6 Event and Error Messages	
9.8.9 Reports	
9.8.9.1 Sample Reports	
9.8.9.1.1 Sample Report (Full Page Format)	
9.8.9.1.2 Sample Report (Three Line Format)	
9.8.9.1.3 Sample Report (Index Format)	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
9.8.9.1.4 Sample Report (One Line Format)	
9.8.9.2 Report Customization	
9.9 Use of the Baseline Manager	
9.9.1 Purpose	
9.9.2 Applicable to	
9.9.3 References	
9.9.4 Procedures	
10. METADATA ADMINISTRATION	
10.1 Metadata Preparation	
10.1.1 Creating Collection Level Metadata	
10.1.2 Creating Product-specific Metadata	
10.1.3 Specifying ESDT Services	
10.2 Creating ESDTs	
10.2.1 Selecting an ESDT	
10.2.2 Creating an ESDT Descriptor	
10.3 Loading Metadata	
10.3.1 Inserting ODL into DSS	
10.4 Metadata Maintenance	
10.4.1 Updating Metadata	
10.4.2 Editing Metadata	
10.4.3 Deleting Metadata	
11. SSI&T OPERATIONAL PROCEDURES	
11.1 Acquiring the Delivered Algorithm Package (DAP)	
11.1.1 Acquiring the DAP Through Ingest	
11.1.2 Acquiring the DAP via FTP	
11.2 Configuration Management	
11.2.1 Creating and Using a View in ClearCase	
11.2.2 Importing Multiple Files into ClearCase from a Directory Structure	
11.2.3 Entering a Single File into ClearCase	
11.2.4 Entering a New Directory into ClearCase	
11.2.5 Checking Out an Element from ClearCase	
11.2.6 Checking a Revised Element into ClearCase	
11.3 SSIT Manager GUI	
11.3.1 General Setup of the SSIT Manager	
11.3.2 Setup of Checklist for SSIT Manager	
11.3.3 Initial Setup of the SSIT Manager	
11.3.4 Routine Running of the SSIT Manager	
11.4 Standards Checking	
11.4.1 Checking ESDIS Standards Compliance: FORTRAN 77	
11.4.2 Checking ESDIS Standards Compliance: Fortran 90	
11.4.3 Checking ESDIS Standards Compliance: C	
11.4.4 Checking ESDIS Standards Compliance: Ada	
11.4.5 Prohibited Function Checker	
11.4.6 Checking Process Control Files	
11.5 Compiling and Linking	
11.5.1 Updating the Process Control File (PCF)	
11.5.2 Compiling Status Message Facility (SMF) Files	
11.5.3 Setting up a SDP Toolkit Environment	
11.5.4 Compiling a PGE and Linking With SCF Version of SDP Toolkit	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
11.5.5 Compiling a PGE and Linking with DAAC Version of SDP Toolkit	
11.6 Updating the PDPS Database and Data Server	
11.6.1 Operational Metadata Population	
11.6.2 Science Metadata Population	
11.6.3 Inserting Science Software Archive Package into Data Server	
11.6.4 Inserting Static Files into Data Server	
11.6.5 Inserting Executables into Data Server	
11.7 PGE Planning and Processing	
11.7.1 Planning Workbench	
11.7.2 Production Request Editor	
11.7.3 Profiling a PGE Executable	
11.8 File Comparison	
11.8.1 Acquiring the Output Files	
11.8.2 HDF File Comparison Using the GUI	
11.8.3 HDF File Comparison Using hdiff	
11.8.4 ASCII File Comparison	
11.8.5 Binary File Comparison	
11.8.6 Viewing Product-Created Metadata Using the EOSView Tool	
11.9 Post-Production Activities	
11.9.1 Viewing Granule and Data Dictionary Metadata	
11.9.2 Science Software Problem Tracking	
11.9.3 Science Software Defect Tracking	
11.9.4 ECS Non-Conformance Reporting	
11.10 Troubleshooting and General Investigation	
11.10.1 Examining PGE-Produced Log Files	
11.10.2 Examining the MSS Log File	
11.10.3 Extracting Prologs from the Science Software Source Files	
11.10.4 PDPS Prototype-Related Scripts and Message Files	
11.11 Miscellaneous	
11.11.1 Setting Up the Release A Newsgroups	
11.11.2 Reading Release A Newsgroups	
11.11.3 Posting to Release A Newsgroups	
12. RESOURCE PLANNING	
12.1 Create a Resource Reservation	
12.2 Edit a Resource Request	
12.3 Validate a Resource Reservation	
12.4 Approve a Resource Reservation	
12.5 View Resource Reservation Timeline	
12.6 Activate Resource Reservation Plan	
12.7 Cancel a Resource Reservation	
13. PRODUCTION PLANNING	
13.1 Create New Production Request	
13.2 Edit/Modify Production Request	
13.3 Review Data Production Requests	
13.4 Create New Production Plan	
13.5 Review Plan Timeline	
13.6 Reports	
13.6.1 Generate Standard Production Reports	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
13.6.2 Generate Custom Reports	
14. PRODUCTION PROCESSING	
14.1 Configure AutoSys	
14.1.1 AutoSys Runtime Options	
14.1.2 Configure Hardware Groups	
14.2 Review Hardware Status	
14.2.1 Review Hardware Status	
14.2.2 Hardware Status View Options	
14.3 Review DPR Dependencies	
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14.5 Modify Job Priority	
14.6 Review Alarms	
14.6.1 Review Alarms	
14.6.2 Alarm Selection Configuration	
14.7 Review Job Activities	
14.7.1 Review Job Activities	
14.7.2 Review Job Selection Criteria	
14.8 Modify Job Status	
14.9 Activity Log	
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14.11 Defining Monitors/Browser	
14.11.1 Defining Monitors/Browser	
14.11.2 Monitor/Browser Reports	
14.12 Database Maintenance Time Change	
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14.13.1 Time Synchronization Procedure	
14.13.1.1 Time Synchronization Quick-Steps	
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15.1 DAAC Product QA	
15.2 Product QA Subscription	
15.2.1 Product QA Subscription Procedures	
15.2.1.1 Product QA Subscription Quick-Steps	
15.3 DAAC Product QA	
15.3.1 Perform DAAC Product QA Procedure	
15.3.1.1 Perform DAAC Product QA Quick-Steps	
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15.3 Product QA Documentation	
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15.5.1 User Comment Document (Granule & Collection) Procedure	
15.5.1.1 User Comment Document (Granule & Collection) - Quick-Steps	
15.5.2 Validation Document (Collection)	
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15.6 Product QA Access Restraints	
15.6.1 Product QA Access Restraints	
15.6.1.1 Product QA Access Restraints - Quick Steps	
15.7 QA Reports	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
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15.7.1.1 QA Reports	
16. INGEST	
16.1 ECS Ingest Tool	
16.1.1 View the Ingest History Log	
16.1.2 Ingest History Log Reports	
16.1.3 Ingest Monitor/Control	
16.1.4 Ingest Operator Tools	
16.1.4.1 Modify External Data Provider/Interactive User Information	
16.1.4.2 Modify System Parameters	
16.1.5 Media Ingest	
16.2 Operator Tools	
16.2.1 Modify External Data Provider/Interactive User Information	
16.2.1.1 E-mail Address	
16.2.1.2 Volume Threshold	
16.2.1.3 Request Threshold	
16.2.1.4 Priority Level	
16.2.2 Modify System Parameters	
16.2.2.1 Volume Threshold	
16.2.2.2 Request Threshold	
16.2.2.3 Communication Retry Count	
16.2.2.4 Communication Retry Interval	
16.2.2.5 Monitor Time	
16.2.2.6 Screen Update Time	
16.3 Ingest Processing	
16.3.1 DAN Creation	
16.3.2 Automated Network Ingest	
16.3.2.1 Starting the Automated Network Ingest Server	
16.3.2.2 Submitting a Data Availability Notice (DAN)	
16.3.2.3 Monitoring User's Ingest Status	
16.3.2.4 Viewing a Data Delivery Notice (DDN)	
16.3.2.5 Recovery from a Faulty DAN	
16.3.2.6 Recovery from a Data Ingest Failure	
16.3.3 Polling Ingest with Delivery Record (DR)	
16.3.3.1 Recovery from a Faulty DR	
16.3.3.2 Recovery from Data Ingest Failure	
16.3.4 Polling Ingest Without Delivery Record	
16.3.4.1 Recovery from Data Ingest Failure	
16.3.5 Hard Media Ingest	
17. ARCHIVE	
17.1 Storing New Data in Archive Repository	
17.1.1 Recover from Failure to Store Data	
17.2 Handling Archived Data	
17.2.1 Backing Up Archive Data	
17.2.2 Deleting Files from the Archive	
17.2.3 Archive Data Recovery/Restoration	
17.2.3.1 Use of Backup Data for Recovery	
17.2.3.2 Requesting Replacement Data from Provider	
17.3 Monitoring and Fault Notification	
17.4 Temporary Data Storage of Intermediate Files	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
18. DATA DISTRIBUTION	
18.1 Media Operations	
18.1.1 Loading Tapes	
18.1.2 Dismounting Tapes	
18.1.3 Tape Fault	
18.1.4 Creating Labels	
18.2 Product Shipment	
19. USER SERVICES	
19.1 ECS User Account Management	
19.1.1 Retrieve User Account/Validate a User	
19.1.1.1 Retrieve User Account/Validate a User Quick-Steps	
19.1.2 Create a User Account	
19.1.2.1 Account Information	
19.1.2.2 Personal Information	
19.1.2.3 Shipping Address	
19.1.2.4 Billing Address	
19.1.2.5 Mailing Address	
19.1.2.6 Create a User Account Quick-Steps	
19.1.3 Account Creation From URL Registration	
19.1.3.1 Account Creation From URL Registration Quick-Steps	
19.1.4 Edit/Modify an Existing Account	
19.1.4.1 Edit/Modify Account Information	
19.1.4.2 Edit/Modify Personal Information	
19.1.4.3 Edit/Modify Shipping Address	
19.1.4.4 Edit/Modify Billing Address	
19.1.4.5 Edit/Modify Mailing Address	
19.1.4.6 Edit/Modify an Existing Account Quick-Steps	
19.1.5 Deleting an ECS Account	
19.1.5.1 Deleting ECS Account Quick-Steps	
19.1.6 Canceling an ECS Account	
19.1.6.1 Canceling an ECS Account Quick-Steps	
19.1.7 Changing an ECS User's Password	
19.1.7.1 Changing an ECS User's Password Quick-Steps	
19.2 Processing an Order	
19.2.1 Create a User Contact Log Record	
19.2.1.1 How to Create a User Contact Log Record	
19.2.1.1.1 Creating a User Contact Log - Quick-Steps	
19.2.2 Retrieve User Information	
19.2.2.1 Retrieve User Account Quick-Steps	
19.2.3 Locate Data Via Search and Order Tool	
19.2.3.1 Obtain a Spatial Summary	
19.2.3.2 Obtain a Temporal Summary	
19.2.3.3 Obtain a Discrete Attribute Summary	
19.2.3.4 Browse the Search Results	
19.2.3.5 Select Granules to Order	
19.2.4 Request Price Estimate	
19.2.5 Specify Order Details	
*19.2.5.3 Provide Billing & Accounting Information	
19.2.5.4 Order Data Quick-Steps	
19.2.6 Update User Contact Log	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
19.2.6.1 Update a User Contact Log Procedure	
19.2.6.1.1 Update User Contact Log Record - Quick-Steps	
19.3 Cancel an Order	
19.3.1 ECS Order Tracking	
19.3.2 Cancel an Order Via DSS	
19.3.2.1 Locate Order Via Request Tracking Tool	
19.3.2.2 Cancel Order Via Science Data Server GUI	
19.3.3 Update User Contact Log	
19.3.4 Cancel an Order Quick-Steps	
19.4 Fulfilling Subscriptions	
19.4.1 Fulfilling a One-time Subscription	
19.4.2 Fulfilling an Open Ended Subscription	
19.4.3 Returning a List of Subscriptions	
19.4.4 Canceling a Subscription	
19.4.5 Fulfilling Subscriptions Quick-Steps	
19.5 Creating/Logging a Trouble Ticket	
19.6 Cross-DAAC Referral Process	
*19.7 Cross-DAAC Order Tracking	
19.8 Guide Authoring and Maintenance	
19.8.1 Creating Guide HTML Documents	
19.8.2 Loading Guide Documents	
19.8.3 Editing Guide Documents	
20. LIBRARY ADMINISTRATION	
20.1 SEO Document Maintenance	
20.1.1 Authoring Documents	
20.1.2 Formatting Documents	
20.1.3 Importing Documents	
20.1.4 Exporting Documents	
20.1.5 Metadata Maintenance	
20.2 On-Site Document Maintenance	
20.2.1 Authoring Documents	
20.2.2 Importing Documents	
20.2.3 Formatting Documents	
20.2.4 Searching for a Document	
20.2.5 Metadata Maintenance	
20.3 Preparing Documents for Insertion into the DDSRV	
20.4 Maintenance of Document Inventory Records and Links to Configuration Items in Baseline Manager	
20.5 Document Metadata Insertion Subscription	
20.6 Document Repository Maintenance	
20.7 Document Access Control	
20.8 Retrieval of HTTP Formatted Documents	
21. COTS HARDWARE MAINTENANCE	
21.1 COTS Hardware Support - General	
21.1.1 Corrective Maintenance	
21.1.2 Preventive Maintenance	
21.1.3 Configuration Management	
21.1.4 COTS Hardware Support Safety	
21.2 COTS Hardware Support - Contract Information	
21.2.1 Management of COTS Hardware Support Contracts	
21.2.2 Contract Maintenance Terms	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
21.2.3 COTS Hardware Database	
21.3 Hardware Repairs - Standard	
21.3.1 Hardware Problem Reporting	
21.3.2 Initial Troubleshooting/Diagnostics	
21.3.3 Hardware Corrective Maintenance Actions	
21.3.4 Contract On-Site Hardware Support	
21.3.5 Return-to-Depot Support	
21.4 Maintenance Spares	
21.4.1 Installed Maintenance Spares	
21.4.2 Use of Maintenance Spares	
21.4.3 Return of Failed LRUs	
21.5 Non-standard Hardware Support	
21.5.1 Escalation of COTS Hardware Support Problem	
21.5.2 Time and Material (T&M) Hardware Support	
22. SOFTWARE MAINTENANCE	
22.1 COTS Software Maintenance	
22.1.1 Management of COTS Software Maintenance Contracts	
22.1.2 Management of COTS Software Licenses	
22.1.3 COTS Software Installation	
22.1.4 Obtaining COTS Software Support	
22.1.4.1 COTS Software Problem Reporting	
22.1.4.2 Troubleshooting COTS Software	
22.1.4.3 Corrective Action Reporting	
22.2 Custom Software Maintenance	
22.2.1 Implementation of Modifications	
22.2.2 Test Plans and Procedures	
22.2.3 Custom Software Installation	
22.2.3.1 Scheduling the Release	
22.2.3.2 Operations and User Notification	
22.2.3.3 Maintenance Changes to the On-Site SW Change Manager Library	
22.2.3.3.1 Branching Approach	
22.2.3.3.2 Configuring the Operational Environment	
22.2.3.3.3 Performing Merge Activities	
22.2.3.3.4 Configuration Specifications	
22.2.3.3.5 Branch Naming Conventions	
22.2.3.4 Creating the SW Build Using SW Change Manager (ClearCase)	
22.2.3.5 Promoting Software Using SW Change Manager (ClearCase)	
22.2.3.5.1 "Change State Script" Description	
22.2.3.5.2 Promotion_level Script Description	
22.2.3.6 Installing the New Release	
22.2.4 Obtaining Software Support	
22.2.4.1 SW Problem Reporting	
22.2.4.2 Troubleshooting	
22.2.4.3 Corrective Action Reporting	
22.2.5 Science Software	
23. PROPERTY MANAGEMENT	
23.1 Receipt of Equipment and Software	
23.2 Equipment Tagging	

Mission Operations Procedures for the ECS Project	Test Procedure Paragraph #
23.3 Property Records and Reporting	
23.3.1 Maintaining Property Records	
23.3.2 Property Reporting	
23.3.3 Reporting Loss, Theft, Damage or Destruction	
23.3.4 Obtaining Relief from Accountability	
23.4 Equipment Relocation	
23.4.1 Intra-site Relocation	
23.4.2 Inter-site Relocation	
23.4.3 Relocation Off-site for Vendor Repairs	
23.4.4 External Transfers	
23.5 Inventories and Audits	
23.6 Storage	
23.6.1 Segregation Requirements	
23.6.2 Stock Rotation	
23.6.3 Physical Security	
23.7 Packing and Shipping	
24. INSTALLATION PLANNING	
24.1 Responsibilities	
24.2 Process Description	
24.3 Maintenance of Facility and Network Diagrams	
24.4 Maintenance of LAN Cable Management Schema	
25. COTS TRAINING	
25.1 Requesting COTS Training	
25.2 Coordinating COTS Training	
25.3 Canceling/Rescheduling COTS Training	
25.4 Maintenance of COTS Training Records	
25.5 Contractor COTS Training Funds Accounting	
26. ON-LINE ADVERTISING SERVICE ADMINISTRATION	
26.1 Accessing ESOD	
26.2 ESOD Administration	
26.2.1 Create a Moderation Group	
26.2.2 Update a Moderation Group	
26.2.3 Delete a Moderation Group	
26.3 ESOD Moderation	
26.4 On-line Advertising Service Configuration Files	

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Appendix D. Test Sequences Mapped to LaRC Hardware

This table lists each piece of hardware at the Release A ECS LaRC DAAC in the left column, and in the right column a list of test procedures which use that hardware as part of the procedure(s).

Table D-1. Test Sequences Mapped to LaRC Hardware

Subsystem	HWCI/CSCI	Platform	Custom Executables	COTS	Test Procedure Paragraph #
Ingest	ICLHW	ICLHW-LaRC 1.1,2 (Ingest server)	peer agent	Irix Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, net.h++, tools.h++, dbtools.h++, amass, sybase server, Remedy*, tivoli client, wabi/office, essm, sqr wkbch, Crack, Npassword, TCPWrappers, TripWire, netscape browser	
Ingest	ICLHW	ICLHW-LaRC 4,5 (LaRC-5 will be used for EDOS early interface testing)	IngestServer, IngestSession, CSS SDPF gateway, CSS TSDIS gateway, PollingIngest and RequestManager, peer agent, preprocessing executables, Ingest user and operator guis, advertising clients, staging disk class libraries, sdsrv wrapper	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, net.h++, tools.h++, dbtools.h++, sybase server, essm, Remedy*, tivoli client, wabi/office, netscape browser, Crack, Npassword, TCPWrappers, TripWire, kftp, ftp	
			subscription engine	kerberos, sqr wkbch	
CSS	DCHCI	CSS-LARC-1 (CSS server) and MSS-LARC-4 (MSS server)	DCE Directory, Security and Time servers, peer agent	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, net.h++, tools.h++, dbtools.h++, Remedy TT, tivoli client, wabi/office, netscape browser, mail server, Crack, Npassword, TCPWrappers, TripWire	
MSS	MSSHCI	MSS-LARC-4 (MSS server) and CSS-LARC-1 (CSS server)	MsAgDpty, peer agent	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, C, C++, Softbench, bx, graphpak, epak, net.h++, tools.h++, dbtools.h++, Remedy*, tivoli server, wabi/office, netscape browser, Sybase server, essm, sqr wkbch, PNM, HPOV	

Subsystem	HWCI/CSCI	Platform	Custom Executables	COTS	Test Procedure Paragraph #
				Crack, Npassword, TCPWrappers, TripWire, Satan, dce dev tlkt	
				HAL DCE cell manager	
MSS	MSSHCI	MSS-LaRC-1.1	Clearcase, peer agent, Software change manager (DDTS), Inventory change manager (SoftPC/MS Office), XRP II Baseline Manager,	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase server and client, tools.h++, dbtools.h++, Remedy*, tivoli client, wabi/office, netscape browser, sybase client, Crack, Npassword, TCPWrappers, TripWire, Satan	
				sqr wkbch	
MSS	MSSHCI	MSS-LaRC-3 (MSS WS)	GUI executables, peer agent	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, dbtools.h++, Remedy*, tivoli client, wabi/office, netscape browser, sybase client, Crack, Npassword, TCPWrappers, TripWire, sqr wkbch	
Data Server	ACMHW	ACMHW-LaRC-1,2 (Ops WS)	Ingest operator GUI, peer agent	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, dbtools.h++, Remedy*, tivoli client, wabi/office, netscape browser, Crack, Npassword, TCPWrappers, TripWire	
Data server	ACMHW	ACMHW-LaRC-3 and 4 (APC sybase server)	peer agent, STMGT Network resource manager	Irix Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, net.h++, tools.h++, dbtools.h++, sybase server, Remedy*, tivoli client, wabi/office, netscape browser, essm, sqr wkbch, Crack, Npassword, TCPWrappers, TripWire	
Data Server	ACMHW	MSS-MSFC-1 (becomes ACMHW-LaRC-5) front end to APC server	Science Data Server Process, peer agent, SDSRV admin process, STMGT network resource manager, STMGT pull monitor process, ingest server, ingest session, polling ingest, ingest request manager, advertising clients	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, dbtools.h++, Remedy*, tivoli client, wabi/office, netscape browser, sybase client, Crack, Npassword, TCPWrappers, TripWire, kftp, kerberos, sqr wkbch	
			CSS SDPF gateway, CSS TSDIS gateway, SDSRV wrapper, subscription engine, staging disk class libraries, cgi scripts		

Subsystem	HWCI/CSCI	Platform	Custom Executables	COTS	Test Procedure Paragraph #
Data Server	DIPHW	DIPHW-LaRC 1 and 2 (distribution server)	DDIST Distribution server process, peer agent, STMGT CDROM Resource management process, STMGT tape resource manager, STMGT printer resource manager	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, Remedy*, tivoli client, wabi/office, netscape browser, Crack, Npassword, TCPWrappers, TripWire, ftp	
Data Server	DRPHW	DRPHW-LaRC-1 and 2 (FSMS server)	peer agent, STMGT Staging Resource Manager Process, advertising client, STMGT archive manager	Irix Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, C, C++, f77, CaseVision, bx, graphpak, epak, net.h++, tools.h++, dbtools.h++, amass, Remedy*, tivoli client, wabi/office, netscape browser, dce dev tlkt, nfs	
				Crack, Npassword, TCPWrappers, TripWire	
Data Server	DRPHW	DIPHW-MSFC-2 (becomes DRPHW-LaRC-6) front end sun	peer agent, STMGT Staging Resource Manager Process, STMGT Staging Disk Monitor Process, advertising server, advertising client, ingest request manager	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, Remedy*, tivoli client, wabi/office, netscape browser, sybase client, dbtools.h++, Crack, Npassword, TCPWrappers, TripWire, sqr wkbch	
Data Server	DRPHW	DRPHW-LaRC-3 and 4 (DBMS server)	peer agent	Irix Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, dbtools.h++, sybase server, Remedy*, tivoli client, wabi/office, netscape browser, essm, sqr wkbch, Crack, Npassword, TCPWrappers, TripWire	
Data server	DDSHW	DDSHW-LaRC-1 and 2	Document Data server process, peer agent, document repository process, www server process (secured, and unsecured), Advertising Custom CGI Bin Programs, advertising clients	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, Remedy*, tivoli client, wabi/office, netscape commerce server, TOPIC server, illustra, sqr wkbch, dbtools.h++, Crack, Npassword, TCPWrappers, TripWire	
				Netscape server (secured and unsecured; must be secured for DNS lookup)	

Subsystem	HWCI/CSCI	Platform	Custom Executables	COTS	Test Procedure Paragraph #
Planning	PLNHW	PLNHW-LaRC 1 (Planning server), SPRHW-LaRC-7 (queuing server)	peer agent, Resource planning application, Production planning application, subscription manager, advertising clients, delphi hcl,	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, Graphpak, dbtools.h++, sybase server, essm, net.h++, Remedy*, tivoli client, wabi/office, sqr wkbch	
			Autosys DB server (shadow), Autosys event processor (backup), execution manager, data manager, Resource manager, Autosys operators console, AutoXpert (including jobscape, timescape, hostscape)	Npassword, TCPWrappers, TripWire, netscape browser, Autosys, AutoXpert	
			PDPS Database server		
		SPRHW-Larc-7		C, C++, SparcWorks, Bx, Epak, multithreaded debugger	
Planning		PLNHW-LaRC 2 Planning Workstation	peer agent, Production planning application, Resource Planning application, Autosys Operators console, AutoXpert (including Jobscape, TimeScape and Hostscape), ECS Desktop	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, dbtools.h++, sybase client, Remedy*, tivoli client, wabi/office, netscape browser, Crack, Npassword, TCPWrappers, TripWire, sqr wkbch	
Processing	SPRHW	SPRHW-LaRC-5,6 (Science Processor)	Autosys remote agent, peer agent (currently does not run), HDF-EOS, SDP Toolkit, Data Preprocessing, Science software, Processing support scripts	Irix Op sys, snmp agent, dce, motif, x11r5, clearcase client, C, C++, F77, Ada, F90, CaseVision, bx, graphpak, epak, tools.h++, dbtools.h++, sybase client, Remedy*, wabi/office, netscape browser, IDL, IMSL autosys, autoxpert, autosys remote agent scripts	
				Crack, Npassword, TCPWrappers, TripWire, kftp, kerberos, sqr wkbch	
Processing	AQAHW	AQAHW-LaRC-1 (QA workstation)	Ops QA monitor, ECS DSKTP, peer agent, EOSView, HDF-EOS	Irix Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, dbtools.h++, Remedy*, wabi/office, netscape browser, IDL, IMSL, Crack, Npassword, TCPWrappers, TripWire	

Subsystem	HWCI/CSCI	Platform	Custom Executables	COTS	Test Procedure Paragraph #
Processing	AITHW	AITHW-LaRC 1,2,3 (these are Ir1 machines. MRS will Release A dedicated machines)	Production planning application, Resource Planning application, peer agent	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, C, C++, Sparcworks, bx, graphpak, epak, tools.h++, dbtools.h++, Remedy*, tivoli client, dce dev tlkt, wabi/office, netscape browser, f77, f90, ada, idl, imsl	
			Document viewing, AIT Manager GUI, AI&T Tools, PGE Processing GUI, PGE Registration GUI, AutoSys Operators Console	Sybase Client, FORCHECK, Ghostview, emacs, Adobe acrobat, Netscape browser, WABI, XEDIT, autosys remote agent, kftp, kerberos, sqr wkbch, NCSA mosaic	
			AutoSys Xpert GUIs (TimeScape, JobScape, HostScape), ECS DSKTP, EosView, HDF-EOS,	Crack, Npassword, TCPWrappers, TripWire	
Processing	AITHW	AIT Workstation / DBMS Server	Subscription manager, PDPS DB server. Autosys DB server, AutoSys Event Processor, Autosys Agent, Data Manager, Execution Manager, Resource Manager, peer agent, ECS Desktop, advertising clients	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, C, C++, Sparcworks, bx, graphpak, epak, tools.h++, dbtools.h++, Remedy*, tivoli client, dce dev tlkt, wabi/office, netscape browser, f77, f90, ada, idl, imsl	
			SDP Toolkit, HDF-EOS	Sybase server, FORCHECK, Ghostview, emacs, Adobe acrobat, Netscape browser, WABI, XEDIT, autosys remote agent, essm, sqr wkbch	
				FORCHECK, Ghostview, emacs, Adobe acrobat, WABI, XEDIT, Crack, Npassword, TCPWrappers, TripWire	
Data Management	DMGHW	DMGHW-LARC-1, 2, 3 (Data Specialist Workstation)	Specialist GUIs, peer agent	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, dbtools.h++, Remedy*, tivoli client, wabi/office, Sybase client, netscape browser, Crack, Npassword, TCPWrappers, TripWire, sqr wkbch	
Data Management	DMGHW	DMGHW-LaRC-6 (DBA Ops Workstation)	Specialist GUIs, peer Agent	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, dbtools.h++, Remedy*, tivoli client, wabi/office, Sybase client, netscape browser, Crack, Npassword, TCPWrappers, TripWire, sqr wkbch	

Subsystem	HWCI/CSCI	Platform	Custom Executables	COTS	Test Procedure Paragraph #
Data Management	DMGHW	DMGHW-LaRC-4,5 (DMG Server)	DMG Gateway, CSS Gateway executables - 2 processes per connection, peer agent	Op sys, snmp agent, dce, oodce, motif, x11r5, clearcase client, tools.h++, dbtools.h++, Remedy*, tivoli client, wabi/office, Sybase server & client, netscape browser, kerberos, Crack, Npassword, TCPWrappers, TripWire	
			CSS Gateway executables - 2 processes per connection	net.h++, essm, sqr wkbch, kftp	
Interoperability	ADSHWCI co-located with DMGHWCI	DMGHW-LaRC-4,5 (DMG Server)	COTS Sybase Replication server, COTS Sybase SQL Server, Custom Advertising Server, Custom Library for Advertising Clients, COTS Sybase Admin Tools (essm), peer agent		
	Users and Operators Workstation		Custom Installer Program	C++, Motif, FTP, Tools.h++, Miller C++ Libraries (Public Domain)	
Client	DESKT	All operator workstations and servers (if xterms access servers)	EcsDesktop	ROGUEWAVE tools.h++ OODCE DCE C/C++ Doug Young's Library for Motiff/C++ 1992 Epak Widgets	
				Motif Window Manager, mwm (Solaris or SunOS) or platform dependent alternative: Viewm (HP), 4Dwm (SGI), NCDs (NCDwm), etc.	
				Web browser: Netscape	
				DCE OODCE Motif or CDE with equivalent Motif version ICS Builder Xcessory ICS EPak widgets RogueWave tools.h++ C/C++ compilers and debuggers	
				Doug Young's C++ library for Motif 1992 version ECS C++ widget wrapper library (TBD)	
Client	WKBCH		User Registration Tool User Profile Tool	Same as Client	

Appendix E. Test Procedure Format

The following contain a test procedure template, with annotations describing what each item contains.

E.1 Scenario Test Group

Each Scenario Group begins with an overview paragraph describing the Scenario Group.

E.1.1 Scenario Title

Each Scenario begins with a paragraph summarizing the Scenario.

E.1.1.1 Sequence Title

Each Sequence has a brief summary describing this sequence of tests.

Configuration: The subsystems needed to perform this sequence of tests are listed here. Appendix D contains additional detail.

External Interfaces: The external interfaces (i.e. other ECS sites and data sources) needed for a sequence (both real and simulated) are listed.

Operator Position(s): The operator positions from the ECS Maintenance and Operations Position Descriptions document (607/OP2) needed to support a sequence are listed.

Operational Scenario(s): The operations scenarios, taken from the Operations Scenarios for the ECS Project: Release-A document (605/OP1), that were used to develop tests in this sequence of tests are listed.

Test Dependencies: This table identifies the test procedure(s) in a sequence of tests that should be run prior to or concurrently with a sequence or test procedure.

Test Procedure No.	Site/Procedure No.	Comments
Insert proc. # for this volume	List site/proc. #	Prior or Concurrent

E.1.1.1.1 Procedure Title

TEST Procedure No.: A unique #, taken from the Acceptance Test Plan, used to identify the test in RTM	Date Executed: Filled in on the date the formal test is run	Test Conductor The test conductor for this site		
Title: The title of the test				
Objective: A brief statement of the objective of this procedure, taken from the ATP test case description.				
Requirements		Acceptance Criteria		
Requirement i.d. from RTM (i.e. DADS1700#A)		For each requirement verified in a procedure the acceptance criteria contains the following information in the order shown below: a. The Verification method (inspection, analysis, demonstration or test) b. The text of the requirement c. A brief description of HOW the requirement is verified in the test procedure. This description may specify certain functions that the system must perform, specifications or standards that must be complied with, or performance criteria (such as responses times or throughput) that must be met.		
Test Inputs: For each procedure, specific test inputs are identified and listed in the table below				
Data Set Name	Data Set ID	File Name	Description	Version
Descriptive name	data set identifier	name of the physical file containing the data	a brief description of what is in the file	A version control number

Step-By-Step Procedures		
Step No.	Input Action / Expected Results	Pass / Fail / Comments
10	Contains a description of a particular input, or action to be taken by a tester or operator, OR an expected result from the system under test.	Brief explanation of why a step may have failed, or a deviation from the written procedures, and a reference to an NCR, if applicable.
20		
30		
etc.		
Data Reduction and Analysis Steps: <p>This section describes the method used for data reduction and includes instructions necessary to complete the analysis of test results. If applicable, the XRunner and LoadRunner reports generated during script execution are also described in this section. A list of all test outputs that need to be secured after testing (i.e. screen dumps, system logs, etc.) is also included here.</p>		
Signature: Witness or testers signature		Date: Date the test is signed off

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Abbreviations and Acronyms

ACMHW	Access and Control Management Hardware
ADC	Affiliated Data Center
ADSVR	Advertising Data Server
AI&T	Algorithm Integration and Test
AITHW	Algorithm Integration and Test Hardware
AM-1	EOS AM Project (morning spacecraft series)
API	application programming interface
ARP	address resolution protocols
ASF	Alaska SAR Facility (DAAC)
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer (formerly ITIR)
ATC	Actual Time Command
ATP	Acceptance Test Plan
ATPR	Acceptance Test Procedures
ATT	Acceptance Test Team
AVHRR	Advanced Very High Resolution Radiometer
BER	bit error rate
BGP	boundary gateway protocol
CASE	Computer Aided Software Engineering
CAST	Computer Aided Software Test
CCR	Configuration Change Request
CCSDS	Consultative Committee for Space Data Systems
CDRL	Contract Data Requirements List
CERES	Clouds and Earth's Radiant Energy System
CIESIN	Consortium for International Earth Science Information Network
CIO	Contents Identifier Object

CLS	Client Subsystem
CM	Configuration Management
cmi	continuous measurable improvement
CMO	Configuration Management Office
COTR	Contracting Officer's Technical Representative
COTS	Commercial Off-The-Shelf (hardware or software)
CSR	Consent to Ship Review
CSS	Communications Subsystem
CZCS	Coastal Zone Color Scanner
DAAC	Distributed Active Archive Center
DAS	Daily Activity Schedule
DBMS	Data Base Management System
DCN	Document Change Notice
DDICT	Data Dictionary
DDTS	Distributed Defect Tracking System
DDN	Data Delivery Notice
DDS	Data Document Server
DDIST	Data Distribution
DES	Data Encryption Standard
DHF	Data Handling Facility
DIPHW	Distribution and Ingest Peripheral Hardware
DID	Data Item Description
DIT	Data Ingest Technician
DIF	Data Interface Facility (EDOS);
DMGHW	Data Management Hardware Sytstem
DMS	Data Management System
DOF	Distributed Object Framework
DPS	Data Processing Subsystem
DSA	directory service agent

DSN	Deep Space Network
DSS	Data Server Subsystem
EAS	ECS Advertising Service
Ecom	ECS Communications
ECS	EOSDIS Core System
EDC	EROS Data Center (DAAC)
EDF	ECS Development Facility
EDHS	ECS Data Handling System
EDOS	EOS Data and Operations System
ED-Net	EOSDIS Backbone Network
EDU	Exchange Data Unit
EGS	EOS Ground System
EMC	Enterprise Monitoring and Coordination
EOC	EOS Operations Center
EOS	Earth Observing System
EOSDIS	Earth Observing System Data and Information System
ERBE	Earth Radiation Budget Experiment
EROS	Earth Resources Observation System
ESDIS	Earth Science Data and Information System
ESN	ECS Science Network
ETS	EOSDIS Test System
F&PRS	Functional and Performance Requirement Specification
FCA	Functional Configuration Audits
FDF	Flight Dynamics Facility
FOS	Flight Operations System
FOT	Flight Operations Team
FTP	File Transfer Protocol
GATT	Government Acceptance Test Team
GCDIS	Global Change Data Information System

GCMO	Global Change Master Directory
GDS	ground data system
GN	Ground Network
GPCP	Global Precipitation Climatology Project
GPI	GOES Precipitation Index
GSFC	Goddard Space Flight Center
GUI	Graphic User Interface
GV	TRMM Ground Verification
HTML	Hypet-Text Markup Language
I/O	Input/Output
I&T	Integration and Test
IATO	Independent Acceptance Test Organization
ICLHW	Ingest Client Hardware
ICMP	Internet Control Message Protocol
IDR	Incremental Design Review
IGS	International Ground Station
ILS	Integrated Logistics Support
IMS	Information Management System
INS	Ingest Subsystem
IOS	Interoperability Subsystem
IOT	Instrument Operations Team
IP	Internet Protocol
IR	Interim Release
IRD	Interface Requirements Document
ISCCP	International Satellite Cloud Climatology Project
ISS	Internetworking Subsystem
ISS	Information Subsystem
IST	Instrument Support Terminal
IV&V	Independent Verification and Validation

JPL	Jet Propulsion Laboratory
L0–L4	Level 0 through Level 4 data
L0R	Level 0 Reformatted
LPS	Landsat Processing System
L-7	Landsat 7
LAN	Local Area Network
LaRC	Langley Research Center
LIS	Lighting Imaging Sensor
LSM	Local System Management
LSM	Local Site Manager
LTIP	Long Term Instrument Plan
LTSP	Long Term Spacecraft Plan
LVOs	Label Value Objects
M&O	Maintenance and Operations
MAC	Medium Access Control
MDT	mean down time
MIB	Management Information Base
MIME	Multi-purpose Internet Mail Extension
MISR	Multi-Angle Imaging SpectroRadiometer
MITI	Ministry of International Trade and Industry (Japan)
MODIS	Moderate Resolution Imaging Spectrometer
MOPITT	Measurements of Pollution in the Troposphere
NA	Network Analysis
MSFC	Marshall Space Flight Center
MSS	Management Subsystem
MTBM	Mean-Time Between Maintenance
NAB	National Association of Broadcasters
NARA	National Archives and Records Administration
NASA	National Aeronautics and Space Administration

NASCOM	NASA Communications
NCC	Network Communication Center
NCDC	National Climatic Data Center
NCR	Non Conformance Report
NGDC	National Geophysical Data Center
NIST	National Institute for Standards and Technology
NLDN	National Lightning Detection Network
NMC	National Meteorological Center (NOAA)
NOAA	National Oceanic and Atmospheric Administration
NODC	National Oceanic Data Center
NOLAN	Nascom Operational Local Area Network
NRCA	Nonconformance Reporting and Corrective Action
NSI	NASA Science Internet
NSIDC	National Snow and Ice Data Center
OA	Office Automation
ODC	Other Data Center
ODFs	Operational Data Files
OJT	On-the-Job Training
ORNL	Oak Ridge National Laboratory
OSI	Open Systems Interconnection
OSPF	Open Shortest Path First (routing protocol)
OTD	Optical Transient Detector
PA	Product Assurance
PCAs	Physical Configuration Audits
PDPS	Product Development and Processing System
PDR	Preliminary Design Review
PDS	Production Data Set
PIs	Principal Investigators
PLS	Planning Subsystem

PLNHW	Planning Hardware
PM	Performance Manager
PR	Precipitation Radar
QA	Quality Assurance
QO	Quality Office
RIO	Reference Identifier Object
RIP	Routing Information Protocol (207)
RM	Resource Manager
RMA	Reliability, Maintainability, Availability
RRR	Release Readiness Review
RTM	Requirements & Traceability Management
S/C	spacecraft
SA	System Administrator
SAA	Satellite Active Archive
SAGE	Stratospheric Aerosol and Gas Experiment
SAR	Synthetic Aperture Radar
SCC	Spacecraft Computer
SCF	Science Computing Facility
SDL	Software Development Library
SDPF	Sensor Data Processing Facility
SDPS	Science Data Processing Segment
SDR	System Design Review
SDSVR	Science Data Server
SI&T	System Integration and Test Organization
SMC	System Management Center
SME	Subject Matter Expert
SMMR	Scanning Multichannel Microwave Radiometer
SMPTE	Society of Motion Picture & Television Engineers
SMS	Systems Management Subsystem

SNMP	Simple Network Management Protocol
SORR	Segment Operational Readiness Review
SPRHW	Science Processing Hardware
SSITT	Science Software Integration and Test Team
SSM/I	Special Sensor Microwave/Imager
SSR	Solid State Recorder
SUT	System Under Test
SW	Software
SWE	Snow Water Equivalent
TB	tera-byte
TDRSS	Tracking and Data Relay Satellite System
TMI	TRMM Microwave Imager
TOMS	Total Ozone Mapping Spectrometer
TOO	Target of Opportunity
TOVS	Television Infrared Observing Satellite (TIOS) Operational Vertical Sounder
TRMM	Tropical Rainfall Measurement Mission
TRR	Test Readiness Review
TSDIS	TRMM Science Data and Information Systems
TSL	Test Script Language
TSS	TDRSS Service Session
UR	Universal Reference
V0	Version 0
VIRS	Visible Infrared Scanner
WAN	Wide Area Network
WOTS	Wallops Orbital Tracking Station

Glossary

Analysis	Technical or mathematical evaluation based on calculation, interpolation, or other analytical methods. Analysis involves the processing of accumulated data obtained from other verification methods.
Consent to Ship	Review to determine the readiness of a release for transition sites Review (CSR) for integration testing.
Critical Design	A detailed review of the element/segment-level design, including Review (CDR) such details as Program Design Language (PDL) for key software modules, and element interfaces associated with a release.
Demonstration	Observation of the functional operation of the verification item in a controlled environment to yield qualitative results without the use of elaborate instrumentation or special test equipment.
Incremental Design	Review conducted to evaluate segment designs associated with a Review (IDR) release.
Inspection	The visual, manual examination of the verification item and comparison to the applicable requirement or other compliance documentation, such as engineering drawings.
Scenario Group	A collection of scenarios that form one of the broadest functional subdivisions of the system.
Scenario	A functional subdivision of a Scenario Group which is designed and executed independently.
Sequence	A subdivision of a scenario which is designed to verify a number of functionally related requirements
Release Readiness	Conducted at the ECS system level for a GSFC Project Review Review (RRR) Team upon completion of release acceptance testing. The IATO leads the RRR to determine, with the GATT and the COTR, if the release is ready to be delivered, installed, and incorporated into the operational system.
Test	A procedure or action taken to determine under real or simulated conditions the capabilities, limitations, characteristics, effectiveness, reliability, or suitability of a material device, system, or method.
Test Case	A relatively small grouping of requirements that form the building blocks of a sequence.
Test Procedure	A detailed, step-by-step test of a logically related group of requirements

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